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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|-------------------------------|------------------|
| 10/765,513 | 01/27/2004 | Frank Edward Anderson | 2001-0607.03 | 2515 |
| 21972 | 7590 | 07/09/2004 | EXAMINER DUDDING, ALFRED E | |
| LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999 | | | ART UNIT 2853 | PAPER NUMBER |

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,513

Applicant(s)

ANDERSON ET AL.

Examiner

Alfred E. Dudding

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-- **Th MAILING DATE of this communication appears on the cover sheet with th correspond nce address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-46 is/are allowed.
- 6) ☒ Claim(s) 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 25 and 27 are objected to because of the following informalities:

a. claim 25 is dependent on deleted claim 4. In this action, claim 25 will be considered as being dependent on claim 24.

b. claim 27 is dependent on deleted claim 6. In this action, claim 27 will be considered as being dependent on claim 26.

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims **21**, **22**, and **23** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, and 14 respectively of U.S. Patent No. 6,712,439 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

a. Claim 21 of the application and claim 1 of the '439 patent have the following in common:

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a method of activating a printing system by
providing a subset selection signal to the pass switching devices and power switching devices of a selected one of the subsets
providing an address signal to a selected subset of the pass switching devices
providing a heater select signal to one or more of the ground switching devices
providing a primitive signal to a select one of the groups of printing elements on the printhead.

b. Claim 22 of the application and claim 5 of the '439 patent have the following in common:

p number of first control lines each coupled to a corresponding one of the selectable groups of printing elements

q number of second control lines each coupled to a corresponding selectable subset of power switching devices and pass switching devices within one or more of the selectable groups of printing elements

a number of third control lines, each coupled to corresponding pass switching devices within each subset of printing elements

h number of fourth control lines coupled to the one or more of the ground switching devices.

c. Claim 23 of the application and claim 14 of the '439 patent have the following in common:

a plurality of printing elements arranged in selectable groups

a plurality of power switching devices, each coupled to a corresponding one of the

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printing elements

a plurality of pass switching devices, each coupled to a corresponding one of the power switching devices

one or more ground switching devices coupled to provide a switched ground path for current flowing through one or more of the power switching devices

p number of first control lines each coupled to a corresponding one of the selectable groups of printing elements

q number of second control lines each coupled to a corresponding selectable subset of power switching devices and pass switching devices within one or more of the selectable groups of printing elements

a number of third control lines, each coupled to corresponding pass switching devices within each subset of printing elements

h number of fourth control lines coupled to the one or more of the ground switching devices.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 24 - 27 are rejected under 35 U.S.C. 102(a) as being anticipated by Anderson et al. (U.S. 2002/0163549 A1).

Anderson et al. disclose an inkjet printer, Figure 1, element 101, comprising a printer controller for generating print signals in the form of first, second, third and fourth control signals, Figure 1, “drop-firing controller”, a printhead for generating a printed image on a print medium, Figure 2, element 217, the printhead including a plurality of printing elements, Figure 3, element 309 (nozzles); a printhead control circuit having lines connected to each printing element to activate each printing element; a first number of first control lines for providing the first control signals, Figure 5, element 502; a second number of second control lines for providing the second control signals, Figure 5, element 522; a third number of third control lines for providing the third control signals, Figure 5, element 706; and a fourth number of fourth control lines for providing the fourth control signals, Figure 5, elements 708 – 714, wherein the printhead control circuit is in communication with and responsive to the first, second, third and fourth control lines and a selected printing element is activated in response to the first, second, third and fourth control signals. Anderson et al. teaches that print element corresponds to a unique combination of the first, second, third and fourth control signals, and the printhead control circuit is configured to activate a particular unique print element in response to receiving the corresponding unique combination of first, second, third and fourth control signals, Figure 5 (four signals and a clock are required to fire an individual nozzle).

Allowable Subject Matter

6. Claims 28 – 46 are allowed.

7. The following is an examiner's statement of reasons for allowance:

a. The primary reason for the allowance of claims 28 - 35 is the inclusion of the combination of the method steps of activating a selected printing element within an array of printing elements on a printhead of an inkjet printer, and wherein at least one of the power switching devices and at least one of the common switching devices must be activated to activate the selected printing element, the method comprising:

(a) providing a pass switching device selection signal necessary to activate a pass switching device corresponding to the selected printing element

(b) providing a power switching device selection signal necessary to activate a power switching device corresponding to the selected printing element

(c) providing a group selection signal necessary to activate a group of printing elements that includes the selected printing element

(d) providing an activation signal necessary to activate the selected printing element.

It is these steps found in each of the claims, as it is claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

b. The primary reason for the allowance of claims 36 – 46 is the inclusion of the combination of the limitations of an integrated circuit having:

p selectable groups of printing elements;

q selectable subsets of pass switching devices associated with each of one or more of the

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selectable groups of printing elements;

a selectable subsets of power switching devices associated with each of one or more of the selectable subsets of pass switching devices; and

h common switching devices associated with each of one or more of the power switching devices, wherein a respective one of the common switching devices can provide a switched path between a corresponding one of the power switching devices and a common potential, wherein, responsive to activation of a corresponding one of the groups, subsets of pass switching devices, subsets of power switching devices, and common switching devices, a selected printing element can be activated.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Dudding whose telephone number is (571) 272-2144. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, AU 2853, can be reached at (571) 272 - 2149. The fax phone number for this Group is are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0956.

Alfred Dudding

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Alfred Dudding

AD
6/29/04

Michael S. Brook
Primary Examiner